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# NOTICE OF ALLOWANCE AND FEE(S) DUE

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7590

06/25/2010

RADER FISHMAN & GRAUER PLLC LION BUILDING 1233 20TH STREET N.W., SUITE 501 WASHINGTON, DC 20036

EXAMINER					
PAN, HANG					
ART UNIT	PAPER NUMBER				
2103					

DATE MAILED: 06/25/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518.090	07/19/2005	Hironaka Nagashima	IRD-0001	5497

TITLE OF INVENTION: PROGRAM AUTOMATIC CONVERTING METHOD AND PROGRAM AUTOMATIC CONVERTING DEVICE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$755	\$300	\$0	\$1055	09/27/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

#### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

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IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

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Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

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WASHINGTON	N, DC 20036						(Depositor's name)
							(Signature)
							(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTOR		ATTC	PRNEY DOCKET NO.	CONFIRMATION NO.
10/518,090	07/19/2005	•	Hironaka Nagashima			IRD-0001	5497
TITLE OF INVENTION	N: PROGRAM AUTOMA	ATIC CONVERTING M	ETHOD AND PROGRAM	AUTOMATIC CO	ONVEI	RTING DEVICE	
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APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSU	E FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$755	\$300	\$0		\$1055	09/27/2010
EXAM	MINER	ART UNIT	CLASS-SUBCLASS				
PAN,	HANG	2193	717-137000				
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Please check the appropr	riate assignee category or	r categories (will not be p	rinted on the patent):	Individual L C	orporat	ion or other private gro	oup entity 🖵 Government
4a. The following fee(s)	are submitted:	4	b. Payment of Fee(s): (Plea	se first reapply a	ny pre	viously paid issue fee	shown above)
☐ Issue Fee	No small entity discount	permitted)	☐ A check is enclosed. ☐ Payment by credit card. Form PTO-2038 is attached.				
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	ns SMALL ENTITY state	*	☐ b. Applicant is no long	ger claiming SMA	LL EN	TITY status. See 37 Cl	FR 1.27(g)(2).
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,090 07/19/2005		Hironaka Nagashima	IRD-0001 5497	
23353	7590 06/25/2010		EXAM	INER
RADER FISHMAN & GRAUER PLLC			PAN, I	IANG
LION BUILDING	-		ART UNIT	PAPER NUMBER
1233 20TH STRE WASHINGTON,	EET N.W., SUITE 501 DC 20036		2193 DATE MAILED: 06/25/201	0

# Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 1079 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 1079 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

	Application No.	Applicant(s)
	10/518,090	NAGASHIMA ET AL.
Notice of Allowability	Examiner	Art Unit
	HANG PAN	2193
The MAILING DATE of this communication appeal all claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT R	(OR REMAINS) CLOSED or other appropriate comm IGHTS. This application is and MPEP 1308.	in this application. If not included nunication will be mailed in due course. <b>THIS</b>
1. This communication is responsive to <u>amendment filed on I</u>	<u>March 23, 2010</u> .	
2. ☑ The allowed claim(s) is/are <u>1-10</u> .		
<ul> <li>3. Acknowledgment is made of a claim for foreign priority una) All b) Some* c) None of the: <ol> <li>Certified copies of the priority documents have</li> <li>Certified copies of the priority documents have</li> <li>Copies of the certified copies of the priority do International Bureau (PCT Rule 17.2(a)).</li> </ol> </li> <li>* Certified copies not received:</li> </ul>	e been received. e been received in Applicat cuments have been receiv	ion No ed in this national stage application from the
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONN THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.	IENT of this application.	
4. A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give		
5. CORRECTED DRAWINGS ( as "replacement sheets") must		
(a) including changes required by the Notice of Draftspers	-	ew ( PTO-948) attached
1)  hereto or 2)  to Paper No./Mail Date		
<ul><li>(b) ☐ including changes required by the attached Examiner' Paper No./Mail Date</li></ul>		
Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in t		
6. DEPOSIT OF and/or INFORMATION about the depo attached Examiner's comment regarding REQUIREMENT		
Attachment(s)	_	
1. Notice of References Cited (PTO-892)		nformal Patent Application
<ol> <li>Notice of Draftperson's Patent Drawing Review (PTO-948)</li> <li>Information Disclosure Statements (PTO/SB/08),</li> </ol>	Paper No	Summary (PTO-413), b./Mail Date s Amendment/Comment
Paper No./Mail Date		
<ol> <li>Examiner's Comment Regarding Requirement for Deposit of Biological Material</li> </ol>	8. ⊠ Examiner' 9.  ☐ Other	s Statement of Reasons for Allowance
/H. P./	/Lewis A. Bull	ock .lr/
Examiner, Art Unit 2193		atent Examiner, Art Unit 2193

## **DETAILED ACTION**

This office action is in response applicant's amendment filed on March 23, 2010. Claims 1-10 are pending.

#### **EXAMINER'S AMENDMENT**

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Brian Dutton (reg. No. 47255) on May 18, 2010.

The claims have been amended as follows:

1. (Currently Amended) An automatic program conversion method for making a program running in one environment executable in other environments, said conversion method comprising:

where at least one pair of a first instruction pattern information element representing an instruction pattern in an old source program and a second instruction pattern information element representing an instruction pattern in a new source program is stored in a memory part,

an analysis step of analyzing, using an analysis means, a number of times that said first instruction pattern information element appears in said old source program;

an analysis results output step of outputting, using an output means, analysis results obtained in said analysis step;

an instruction pattern conversion step of automatically converting, using a conversion means, descriptions in said old source program that correspond to said first instruction pattern information element analyzed, in said analysis step, as appearing a predetermined number of times or more, so as to correspond to said second instruction pattern information element that is paired with said first instruction pattern information element appearing said predetermined number of times or more;

a new program output step of outputting, using an output means, a new source program resulting from said old source program having been converted in said instruction pattern conversion step; and

an input receiving step of receiving input, manually entered by a user using an input means, regarding descriptions in said old source program that correspond to said first instruction pattern information element analyzed, in said analysis step, as appearing less than said predetermined number of times, so that said descriptions will be modified for said new source program.

2. (Original) The automatic program conversion method as defined in claim 1, wherein said new program output step outputs said descriptions, having been converted in said instruction pattern conversion step, visually distinct from unconverted descriptions, in said new source program.

3. (Currently Amended) A computer program stored in a program storage part, the program performing:

where at least one pair of a first instruction pattern information element representing an instruction pattern in an old source program and a second instruction pattern information element representing an instruction pattern in a new source program is stored in a computer, an analysis step of analyzing a number of times that said first instruction pattern information element appears in said source program;

an analysis results output step of outputting analysis results obtained in said analysis step;

an instruction pattern conversion step of <u>automatically</u> converting descriptions in said old source program that correspond to said first instruction pattern information element analyzed, in said analysis step, as appearing a predetermined number of times or more, so as to correspond to said second instruction pattern information element that is paired with said first instruction pattern information element appearing said predetermined number of times or more;

a new program output step of outputting a new program resulting from said old source program having been converted in said instruction pattern conversion step; and an input receiving step of receiving input manually entered by a user, regarding descriptions in said old source program that correspond to said first instruction pattern

information element analyzed, in said analysis step, as appearing less than said predetermined number of times, so that said descriptions will be modified for said new source program.

- 4. (Original) The program as defined in claim 3, wherein said new program output step outputs said descriptions, having been converted in said instruction pattern conversion step, visually distinct from unconverted descriptions, in said new source program.
- 5. (Currently Amended) An automatic program conversion device comprising: an instruction pattern correspondence information storage part, wherein at least one pair of a first instruction pattern information element representing an instruction pattern in an old source program and a second instruction pattern information element representing an instruction pattern in a new source program is stored;

an analysis part for analyzing a number of times that said first instruction pattern information element appears in said source program;

an analysis results output part for outputting analysis results obtained in said analysis part;

an instruction pattern conversion part for <u>automatically</u> converting descriptions in said source program that correspond to said first instruction pattern information element analyzed, in said analysis part, as appearing a predetermined number of times or more, so as to correspond to said second instruction pattern information element that is paired

with said first instruction pattern information element appearing said predetermined number of times or more;

a new program output part for outputting a new source program resulting from said old source program having been converted in said instruction pattern conversion part; and

an input receiving part for receiving input manually entered by a user, regarding descriptions in said old source program that correspond to said first instruction pattern information element analyzed, in said analysis part, as appearing less than said predetermined number of times, so that said descriptions will be modified for said new source program.

- 6. (Original) The automatic program conversion device as defined in claim 5, wherein said new program output part outputs said descriptions, having been converted in said instruction pattern conversion part, visually distinct from unconverted descriptions, in said source program.
- 7. (Currently Amended) A program creation method for creating a program capable of creating from an old source program running in one environment a new source program executable in other environments, said method comprising:

an analysis step of analyzing a number of times that at least one first instruction pattern information element appears in said old source program;

an analysis results output step of outputting analysis results obtained in said analysis step;

an instruction pattern conversion step of <u>automatically</u> converting descriptions in said old source program that correspond to said first instruction pattern information element analyzed, in said analysis step, as appearing a predetermined number of times or more, so as to correspond to a second instruction pattern information element that is paired with said first instruction pattern information element appearing said predetermined number of times or more;

a new program output step of outputting said new source program resulting from said old source program having been converted in said instruction pattern conversion step; and

an input receiving step of receiving input manually entered by a user, regarding descriptions in said old source program that correspond to said first instruction pattern information element analyzed, in said analysis step, as appearing less than said predetermined number of times, so that said descriptions will be modified for said new source program.

8. (Original) The program creation method as defined in claim 7, wherein said new program output step outputs said descriptions, having been converted in said instruction pattern conversion step, visually distinct from unconverted descriptions, in said new source program.

9. (Currently Amended) A program creation device for creating a program capable of creating from an old source program running in one environment a new source program executable in other environments, said device comprising:

an instruction pattern correspondence information storage part, wherein at least one pair of a first instruction pattern information element representing an instruction pattern in said old source program and a second instruction pattern information element representing an instruction pattern in said new source program is stored;

an analysis part for analyzing a number of times that said first instruction pattern information element appears in said source program;

an analysis results output part for outputting analysis results obtained in said analysis part;

an instruction pattern conversion part for <u>automatically</u> converting descriptions in said old source program that correspond to said first instruction pattern information element analyzed, in said analysis part, as appearing a predetermined number of times or more, so as to correspond to said second instruction pattern information element that is paired with said first instruction pattern information element appearing said predetermined number of times or more;

a new program output part for outputting said new source program resulting from said old source program having been converted in said instruction pattern conversion part; and

an input receiving part for receiving input manually entered by a user, regarding descriptions in said old source program that correspond to said first instruction pattern

information element analyzed, in said analysis part, as appearing less than said predetermined number of times, so that said descriptions will be modified for said new source program.

10. (Original) The program creation device as defined in claim 9, wherein said new program output part outputs said descriptions, having been converted in said instruction pattern conversion part, visually distinct from unconverted descriptions, in said source program.

## STATEMENT OF REASONS FOR ALLOWANCE

Claims 1-10 are allowed.

The following is an examiner's statement of reasons for allowance:

All claims are directed toward a method of translating an old source program into a new source program by automatically mean or manual mean based on the number of appearance of each instruction pattern. The claims recite the limitations of

"where at least one pair of a first instruction pattern information element representing an instruction pattern in an old source program and a second instruction pattern information element representing an instruction pattern in a new source program is stored in a memory part,

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an analysis step of analyzing, using an analysis means, a number of times that said first instruction pattern information element appears in said old source program;

an analysis results output step of outputting, using an output means, analysis results obtained in said analysis step;

an instruction pattern conversion step of automatically converting, using a conversion means, descriptions in said old source program that correspond to said first instruction pattern information element analyzed, in said analysis step, as appearing a predetermined number of times or more, so as to correspond to said second instruction pattern information element that is paired with said first instruction pattern information element appearing said predetermined number of times or more;

a new program output step of outputting, using an output means, a new source program resulting from said old source program having been converted in said instruction pattern conversion step; and

an input receiving step of receiving input, manually entered by a user using an input means, regarding descriptions in said old source program that correspond to said first instruction pattern information element analyzed, in said analysis step, as appearing less than said predetermined number of times, so that said descriptions will be modified for said new source program".

Krapf et al. (US 6901588) teach a user can manually port a program from a source format to a target format. Breternitz (US 6044220) teaches a compiler can either interpret a source code or translate the source code, when an instruction appears more than a threshold number of times, the compiler translates the instruction to native code for execution, else compiler would interpret the instruction to execute it. However, after extensive searches, the examiner has not been able to find any prior art to cover the limitations of

"an instruction pattern conversion step of automatically converting, using a conversion means, descriptions in said old source program that correspond to said first instruction pattern information element analyzed, in said analysis step, as appearing a predetermined number of times or more, so as to correspond to said second instruction pattern information element that is paired with said first instruction pattern information element appearing said predetermined number of times or more;

an input receiving step of receiving input, manually entered by a user using an input means, regarding descriptions in said old source program that correspond to said first instruction pattern information element analyzed, in said analysis step, as appearing less than said predetermined number of times, so that said descriptions will be modified for said new source program".

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably Application/Control Number: 10/518,090 Page 12

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accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HANG PAN whose telephone number is (571)270-7667. The examiner can normally be reached on Mon-Fri, 8:30 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis Bullock can be reached on (571)272-3759. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/H. P./ /Lewis A. Bullock, Jr./ Examiner, Art Unit 2193 Supervisory Patent Examiner, Art Unit 2193